

REMARKS

Claims 1-10, 13-19, and 21-45 are pending in the application. Claim 39 is amended. Claim 45 is newly presented.

Please reconsider this application in view of the above amendments and the following remarks.

The specification has been amended to correct inadvertent mistakes. No new matter has been added.

Claims 1-10, 13-19, 21-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ndondo-Lay (6,273,908) in view of Windecker et al. ("Windecker", Circulation, August 21, 2001; 104:928-933) or Lazorov (6,110,204 or US 2003/0044596) or Huang et al. (US 2003/0175444).

The references alone or in combination fail to teach or suggest, "a stent comprising a compound including Ti, N, C, or including Ti, N, O, or both, **implanted on a molecular level at a depth within at least a region of a surface of the stent**," as recited by claim 1. Ndondo-Lay discloses a stent having cavities that are filled with a biologically active agent (Col. 7, line 37-38). **Ndondo-Lay's cavities are physically dipped into or otherwise coated with a liquid that is drawn into the cavities by surface tension dynamics** (Col. 8, line 26-29). Ndondo-Lay fails to teach or suggest implanting on a **molecular level at a depth within a surface of a stent** as in claim 1 of the invention.

Huang, Windecker, and Lazarov do not cure the deficient teachings or suggestions of Ndondo-Lay. Specifically, Huang discloses depositing TiO_{2-x} **films on the material's surface (i.e., on top of the surface and not within the surface)**. Although Huang discloses molecular deposition, Huang does not appear to disclose the parameters needed for implanting its titanium-containing compounds **at a depth within at least a region of a surface**, such as the present invention's region 20 depicted in Figure 2C2 (See, For example, Huang's parameters in claim 19 having a frequency of 20,000 Hz (i.e., 0.02 MHz) compared to 0.2 to 2450 **MHz** in Table 2, paragraph 20 of the present invention). Nowhere in Huang are there any teachings or suggestions for implanting at a **depth within at least a region of a surface of a medical device** as in claim 1 of the pre-

sent invention. Huang fails to teach deposition into a region of the surface of a device such that the **sub-surface** properties of a device are modified as in the present invention's claim 1 (See Huang, Abstract, paragraph 7, 31, 80 and Claims 1 and 8, for example). Simply put, Huang's molecular deposition layer arguably could at best be compared to layer 22 of the present invention, and not region 20 as claimed.

In addition, there is no motivation to combine the teachings and suggestions of Ndondo-Lay -- **physically dipping** a device having cavities **into a liquid** that is drawn into the cavities by surface tension properties (Col. 8, line 26-29) -- with the teachings and suggestions of Huang -- depositing a **film layer on a molecular level on top of the surface of a device**. These are two disparate references with no commonality. Applicants respectfully submit that the Examiner is simply forcing the combination without providing a reasonable basis why the combination is merited. In fact, Ndondo-Lay taken as a whole teaches one of ordinary skill in the art to reject plasma immersion ion implantation for the purpose of filling cavities and to use dipping into or otherwise coating the device with a liquid that is drawn into the cavities by surface tension properties (Col. 8, line 26-29). Ndondo-Lay's specification as a whole clearly teaches away from Huang's specification. Regardless, the combination of Ndondo-Lay and Huang do not teach each and every element of claim 1 -- namely, sub-surface molecular deposition.

With respect to Windecker, disclosed are stents **coated (again, on top of the stent surface)** with titanium-nitride-oxide (TiNOX) alloy (page 928, second paragraph, also see page 929 under "Stent Coating"). Windecker fails to teach or suggest that its TiNOX alloy is **implanted on a molecular level at a depth within a surface of a stent** as in claim 1 of the invention. Therefore, Windecker fails to cure the deficient teachings and suggestions of Ndondo-Lay.

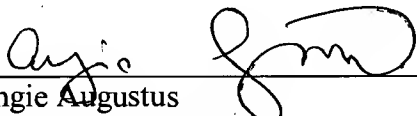
Similarly, Lazarov discloses a Ti-containing **coating (again, on top of the stent surface)** for use in stents that reduce blood coagulation and thrombi (Col. 2, lines 7-11, also see Col. 6, lines 41 to Col. 7, line 40). Lazarov fails to teach or suggest that its titanium-containing coating is **implanted on a molecular level at a depth within a surface** as in claim 1 of the invention. Thus, Lazarov fails to cure the deficient teachings and suggestions of Ndondo-Lay.

In sum, all of the references, alone or in combination, fail to teach or suggest a compound being **implanted on a molecular level at a depth within at least a region of the surface of a stent**. Therefore, Applicants ask that the rejection of independent, claim 1 and its dependent claims be removed. Similarly, Applicants ask that rejection of independent claims 13, 19, 21, 23, 28, 34, 35, 43, 44, 45, as well as their dependent claims, also be removed for at least the same reasons stated above. Since Claims 1-10, 13-19, and 21-45 are in a condition for allowance, please issue a Notice of Allowability. Feel free to contact me if I can be of any assistance.

Respectfully submitted,

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